

Appendix C

Low Economic Growth Case Projections:

**World Energy Consumption
Gross Domestic Product
Carbon Dioxide Emissions
Nuclear Power Capacity**

Table C1. World Total Energy Consumption by Region, Low Economic Growth Case, 1990-2020
 (Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	100.1	112.7	115.7	127.7	135.9	143.5	149.8	1.2
United States ^a	84.2	94.6	97.0	106.6	113.0	119.2	124.1	1.2
Canada.	10.9	12.1	12.5	13.5	14.0	14.3	14.5	0.7
Mexico	5.0	6.1	6.1	7.6	8.8	9.9	11.2	2.9
Western Europe	59.8	65.8	66.0	69.5	71.1	72.6	74.3	0.6
United Kingdom	9.3	9.9	9.9	10.5	10.8	11.1	11.4	0.7
France	8.8	10.2	10.3	10.9	11.2	11.4	11.7	0.6
Germany	14.8	14.2	14.0	14.8	15.1	15.3	15.5	0.5
Italy.	7.0	8.0	8.0	8.5	8.7	8.9	9.1	0.6
Netherlands	3.4	3.8	3.8	4.0	4.1	4.2	4.3	0.5
Other Western Europe.	16.6	19.8	20.0	20.8	21.2	21.6	22.3	0.5
Industrialized Asia	22.8	27.6	27.9	28.3	28.8	29.4	30.0	0.3
Japan	17.9	21.5	21.7	21.8	22.0	22.4	22.7	0.2
Australasia	4.8	6.1	6.2	6.6	6.8	7.0	7.3	0.8
Total Industrialized	182.7	206.1	209.7	225.5	235.8	245.5	254.1	0.9
EE/FSU								
Former Soviet Union	60.7	38.7	39.2	41.4	43.2	46.5	48.7	1.0
Eastern Europe	15.6	11.9	11.2	11.9	12.7	13.5	14.2	1.1
Total EE/FSU	76.3	50.6	50.4	53.3	55.8	60.1	62.9	1.1
Developing Countries								
Developing Asia	51.0	72.9	70.9	87.6	100.8	114.0	126.7	2.8
China.	27.0	35.3	31.9	38.3	44.4	50.2	55.7	2.7
India	7.8	11.6	12.2	14.6	16.6	18.8	20.9	2.6
South Korea	3.7	6.9	7.3	8.6	9.3	10.3	11.1	2.0
Other Asia	12.6	19.1	19.5	26.1	30.5	34.8	39.0	3.4
Middle East	13.1	19.1	19.3	21.3	24.1	27.0	30.2	2.1
Turkey	2.0	3.0	3.0	3.3	3.7	4.1	4.5	2.0
Other Middle East	11.1	16.1	16.4	18.0	20.4	22.9	25.7	2.2
Africa	9.3	11.6	11.8	13.4	14.5	15.8	16.9	1.7
Central and South America . . .	13.7	19.4	19.8	23.0	26.3	29.8	32.9	2.5
Brazil.	5.7	8.2	8.5	9.4	10.6	11.7	12.8	2.0
Other Central/South America .	8.1	11.2	11.2	13.6	15.7	18.1	20.1	2.8
Total Developing	87.2	123.0	121.8	145.2	165.6	186.6	206.7	2.6
Total World	346.2	379.7	381.9	424.1	457.3	492.1	523.6	1.5

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B1; and World Energy Projection System (2002).

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Table C2. World Total Energy Consumption by Region and Fuel, Low Economic Growth Case, 1990-2020
 (Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020	
	1990	1998	1999	2005	2010	2015	2020		
Industrialized Countries									
North America									
Oil	40.4	44.6	45.8	49.9	53.8	57.6	60.7	1.4	
Natural Gas	22.7	26.2	26.8	30.9	33.6	36.6	38.8	1.8	
Coal	20.5	23.5	23.5	25.8	27.0	27.5	28.2	0.9	
Nuclear.	7.0	8.0	8.6	9.2	9.0	8.5	8.4	-0.1	
Other.	9.5	10.7	11.4	11.9	12.6	13.3	13.7	0.9	
Total	100.1	112.7	115.7	127.7	135.9	143.5	149.8	1.2	
Western Europe									
Oil	25.8	29.1	28.7	29.8	29.9	29.9	29.6	0.1	
Natural Gas	9.7	13.6	14.3	17.5	19.3	21.3	24.4	2.6	
Coal	12.4	8.8	8.4	7.5	7.1	6.7	6.0	-1.6	
Nuclear.	7.4	8.8	8.9	8.4	8.2	7.7	6.8	-1.2	
Other.	4.5	5.4	5.6	6.3	6.7	7.1	7.5	1.4	
Total	59.8	65.8	66.0	69.5	71.1	72.6	74.3	0.6	
Industrialized Asia									
Oil	12.5	13.7	13.9	14.1	14.4	14.4	14.4	0.2	
Natural Gas	2.5	3.6	3.8	3.9	4.0	4.3	4.8	1.1	
Coal	4.2	5.3	5.4	5.5	5.5	5.5	5.4	0.0	
Nuclear.	2.0	3.2	3.2	3.1	3.2	3.4	3.5	0.4	
Other.	1.6	1.7	1.7	1.7	1.7	1.8	1.9	0.6	
Total	22.8	27.6	27.9	28.3	28.8	29.4	30.0	0.3	
Total Industrialized									
Oil	78.7	87.4	88.4	93.8	98.1	101.9	104.7	0.8	
Natural Gas	35.0	43.5	44.8	52.4	56.8	62.2	68.0	2.0	
Coal	37.1	37.5	37.3	38.7	39.5	39.7	39.6	0.3	
Nuclear.	16.3	20.0	20.6	20.7	20.4	19.6	18.7	-0.5	
Other.	15.6	17.9	18.6	19.9	21.1	22.2	23.1	1.0	
Total	182.7	206.1	209.7	225.5	235.8	245.5	254.1	0.9	
EE/FSU									
Oil	21.0	10.9	10.8	13.2	14.7	16.8	18.1	2.5	
Natural Gas	28.8	22.7	22.9	23.6	25.7	28.8	31.6	1.6	
Coal	20.8	11.4	11.1	10.5	9.5	8.4	7.3	-2.0	
Nuclear.	2.9	2.7	2.7	3.0	2.7	2.7	2.4	-0.7	
Other.	2.8	3.0	3.0	3.0	3.1	3.3	3.5	0.7	
Total	76.3	50.6	50.4	53.3	55.8	60.1	62.9	1.1	
Developing Countries									
Developing Asia									
Oil	16.0	26.7	27.7	32.7	38.1	44.2	49.5	2.8	
Natural Gas	3.2	6.0	6.4	10.7	13.3	16.3	19.2	5.4	
Coal	27.7	34.5	30.7	35.9	39.7	42.6	45.8	1.9	
Nuclear.	0.9	1.5	1.6	2.2	2.6	3.0	3.5	3.8	
Other.	3.2	4.3	4.6	6.2	7.1	8.0	8.6	3.0	
Total	51.0	72.9	70.9	87.6	100.8	114.0	126.7	2.8	

See notes at end of table.

**Table C2. World Total Energy Consumption by Region and Fuel, Low Economic Growth Case, 1990-2020
(Continued)**
(Quadrillion Btu)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020	
	1990	1998	1999	2005	2010	2015	2020		
Developing Countries (Continued)									
Middle East									
Oil	8.1	10.4	10.5	11.4	12.0	13.0	14.2	1.4	
Natural Gas	3.9	6.9	7.1	8.0	9.9	11.5	13.3	3.0	
Coal	0.8	1.2	1.1	1.1	1.3	1.3	1.3	0.7	
Nuclear.	0.0	0.0	0.0	0.0	0.1	0.1	0.1	—	
Other.	0.4	0.6	0.5	0.7	0.8	1.1	1.3	4.5	
Total	13.1	19.1	19.3	21.3	24.1	27.0	30.2	2.2	
Africa									
Oil	4.2	5.1	5.2	6.5	7.4	8.2	9.1	2.7	
Natural Gas	1.5	2.0	2.1	2.4	2.5	2.9	3.1	1.8	
Coal	3.0	3.7	3.6	3.7	3.6	3.6	3.6	0.0	
Nuclear.	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	
Other.	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.6	
Total	9.3	11.6	11.8	13.4	14.5	15.8	16.9	1.7	
Central and South America									
Oil	7.0	9.4	9.5	10.8	12.0	12.8	13.8	1.8	
Natural Gas	2.2	3.4	3.5	4.9	7.2	10.1	12.1	6.0	
Coal	0.6	0.9	0.9	1.0	1.0	0.9	1.0	0.4	
Nuclear.	0.1	0.1	0.1	0.2	0.2	0.1	0.2	2.3	
Other.	3.9	5.6	5.7	6.1	5.9	5.9	5.8	0.1	
Total	13.7	19.4	19.8	23.0	26.3	29.8	32.9	2.5	
Total Developing Countries									
Oil	35.2	51.5	52.9	61.3	69.6	78.2	86.6	2.4	
Natural Gas	10.8	18.3	19.2	26.0	32.9	40.8	47.7	4.4	
Coal	32.1	40.3	36.3	41.7	45.6	48.4	51.7	1.7	
Nuclear.	1.1	1.7	1.9	2.5	2.9	3.3	4.0	3.7	
Other.	8.0	11.1	11.5	13.8	14.6	15.8	16.6	1.8	
Total	87.2	123.0	121.8	145.2	165.6	186.6	206.7	2.6	
Total World									
Oil	134.9	149.8	152.2	168.4	182.4	196.9	209.4	1.5	
Natural Gas	74.5	84.5	86.9	102.0	115.4	131.7	147.3	2.5	
Coal	90.0	89.3	84.8	90.9	94.6	96.5	98.7	0.7	
Nuclear.	20.4	24.4	25.3	26.1	26.1	25.6	25.1	0.0	
Other.	26.5	32.0	33.1	36.6	38.8	41.3	43.2	1.3	
Total	346.2	379.7	381.9	424.1	457.3	492.1	523.6	1.5	

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B1; and World Energy Projection System (2002).

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Table C3. World Gross Domestic Product (GDP) by Region, Low Economic Growth Case, 1990-2020
 (Billion 1997 Dollars)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	7,723	9,760	10,165	11,973	13,310	14,527	15,729	2.1
United States ^a	6,836	8,675	9,029	10,630	11,788	12,827	13,835	2.1
Canada.	555	665	699	801	870	912	936	1.4
Mexico	332	421	437	542	652	788	958	3.8
Western Europe	7,597	8,731	8,944	9,854	10,518	11,164	11,804	1.3
United Kingdom	1,146	1,353	1,384	1,558	1,677	1,826	1,955	1.7
France	1,299	1,455	1,499	1,664	1,789	1,873	1,949	1.3
Germany	1,879	2,156	2,187	2,378	2,514	2,649	2,786	1.2
Italy.	1,079	1,188	1,207	1,307	1,386	1,463	1,536	1.2
Netherlands	317	392	407	449	481	513	544	1.4
Other Western Europe.	1,877	2,187	2,260	2,499	2,670	2,841	3,035	1.4
Industrialized Asia	4,054	4,765	4,821	4,912	5,083	5,317	5,514	0.6
Japan	3,673	4,271	4,304	4,340	4,468	4,655	4,797	0.5
Australasia	381	494	516	572	615	663	717	1.6
Total Industrialized	19,374	23,256	23,930	26,739	28,910	31,009	33,048	1.5
EE/FSU								
Former Soviet Union	1,009	545	569	647	723	882	994	2.7
Eastern Europe	348	358	363	444	517	597	675	3.0
Total EE/FSU	1,357	903	932	1,091	1,240	1,479	1,669	2.8
Developing Countries								
Developing Asia	1,739	2,975	3,165	4,037	4,934	5,898	6,954	3.8
China.	427	968	1,037	1,343	1,669	1,988	2,338	3.9
India	268	445	473	613	752	917	1,112	4.2
South Korea	297	445	493	599	718	852	1,002	3.4
Other Asia	748	1,118	1,162	1,482	1,795	2,141	2,502	3.7
Middle East	379	580	577	678	790	933	1,108	3.2
Turkey	140	196	186	220	257	301	353	3.1
Other Middle East	239	384	391	458	533	631	754	3.2
Africa	405	485	499	596	681	764	848	2.6
Central and South America . . .	1,136	1,467	1,452	1,740	2,020	2,316	2,643	2.9
Brazil	674	810	816	982	1,149	1,320	1,510	3.0
Other Central/South America .	462	657	636	758	871	996	1,132	2.8
Total Developing	3,660	5,507	5,693	7,051	8,425	9,910	11,553	3.4
Total World	24,392	29,665	30,555	34,881	38,576	42,398	46,269	2.0

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: DRI-WEFA, *World Economic Outlook*, Vol. 1 (Lexington, MA, 3rd Quarter 2001); Energy Information Administration (EIA), *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B20; and EIA, *World Energy Projection System* (2002).

Table C4. World Oil Consumption by Region, Low Economic Growth Case, 1990-2020
 (Million Barrels per Day)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	20.4	22.7	23.4	25.5	27.5	29.4	30.9	1.3
United States ^a	17.0	18.9	19.5	21.1	22.6	24.0	25.0	1.2
Canada.	1.7	1.9	1.9	2.1	2.1	2.1	2.1	0.4
Mexico	1.7	1.9	2.0	2.4	2.7	3.2	3.8	3.1
Western Europe	12.5	14.1	13.9	14.4	14.5	14.5	14.4	0.1
United Kingdom	1.8	1.8	1.7	2.0	2.0	2.0	2.1	0.9
France	1.8	2.0	2.0	2.1	2.1	2.1	2.1	0.1
Germany.	2.7	2.9	2.8	3.0	3.0	2.9	2.9	0.1
Italy.	1.9	2.1	2.0	2.0	2.0	1.9	1.9	-0.2
Netherlands	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.3
Other Western Europe.	3.6	4.5	4.5	4.5	4.5	4.5	4.5	0.0
Industrialized Asia	6.2	6.8	6.9	7.0	7.1	7.1	7.1	0.2
Japan	5.1	5.5	5.6	5.6	5.6	5.6	5.5	-0.1
Australasia	1.0	1.3	1.3	1.4	1.5	1.6	1.7	1.2
Total Industrialized	39.0	43.6	44.2	46.9	49.1	51.0	52.4	0.8
EE/FSU								
Former Soviet Union	8.4	3.8	3.7	4.7	5.3	6.3	6.8	2.9
Eastern Europe	1.6	1.4	1.5	1.6	1.7	1.8	1.8	1.2
Total EE/FSU	10.0	5.2	5.2	6.3	7.1	8.1	8.6	2.5
Developing Countries								
Developing Asia	7.6	12.8	13.3	15.7	18.3	21.2	23.8	2.8
China.	2.3	4.1	4.3	4.7	5.5	6.3	7.0	2.3
India	1.2	1.8	1.9	2.4	2.9	3.6	4.1	3.6
South Korea	1.0	2.0	2.0	2.2	2.4	2.5	2.6	1.2
Other Asia	3.1	4.9	5.0	6.4	7.5	8.9	10.1	3.4
Middle East	3.9	5.0	5.0	5.5	5.8	6.2	6.8	1.4
Turkey	0.5	0.6	0.6	0.8	0.8	0.9	1.0	2.4
Other Middle East	3.4	4.3	4.4	4.7	4.9	5.3	5.8	1.3
Africa	2.1	2.5	2.5	3.1	3.6	4.0	4.4	2.7
Central and South America . . .	3.4	4.6	4.7	5.3	5.9	6.2	6.7	1.8
Brazil	1.3	1.9	2.0	2.1	2.4	2.6	3.0	2.0
Other Central/South America . .	2.1	2.7	2.7	3.1	3.5	3.6	3.8	1.6
Total Developing	17.0	24.8	25.5	29.6	33.5	37.7	41.7	2.4
Total World	66.0	73.6	74.9	82.8	89.6	96.7	102.7	1.5

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B21; and World Energy Projection System (2002).

Appendix C

Table C5. World Natural Gas Consumption by Region, Low Economic Growth Case, 1990-2020
 (Trillion Cubic Feet)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	22.0	25.4	26.1	30.1	32.7	35.6	37.8	1.8
United States ^a	18.7	21.3	21.7	25.2	27.4	30.0	32.0	1.9
Canada.	2.4	2.9	3.1	3.3	3.4	3.6	3.7	0.9
Mexico	0.9	1.3	1.3	1.7	1.9	2.1	2.1	2.4
Western Europe	10.1	13.4	14.0	17.1	18.8	20.7	23.7	2.5
United Kingdom	2.1	3.1	3.3	3.7	4.1	4.5	5.1	2.2
France	1.0	1.3	1.3	1.8	2.0	2.2	2.6	3.2
Germany.	2.7	3.0	3.0	3.9	4.2	4.5	5.3	2.7
Italy.	1.7	2.2	2.4	2.8	3.0	3.3	3.5	1.8
Netherlands	1.5	1.8	1.7	1.9	2.0	2.1	2.1	1.1
Other Western Europe.	1.2	2.0	2.3	3.1	3.5	4.1	4.9	3.8
Industrialized Asia	2.6	3.5	3.6	3.8	3.8	4.1	4.6	1.1
Japan	1.9	2.5	2.6	2.7	2.6	2.8	3.2	0.9
Australasia	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.7
Total Industrialized	34.8	42.3	43.7	51.0	55.3	60.5	66.1	2.0
EE/FSU								
Former Soviet Union	25.0	19.9	20.1	20.4	21.6	23.6	25.6	1.2
Eastern Europe	3.1	2.5	2.4	2.9	3.8	4.7	5.5	4.0
Total EE/FSU	28.1	22.4	22.5	23.3	25.4	28.4	31.1	1.6
Developing Countries								
Developing Asia	3.0	5.6	6.0	10.0	12.4	15.1	17.8	5.3
China.	0.5	0.8	0.9	1.6	2.3	3.3	4.3	7.9
India	0.4	0.8	0.8	1.1	1.4	1.9	2.2	5.1
South Korea	0.1	0.5	0.6	1.1	1.2	1.6	1.9	5.8
Other Asia	1.9	3.6	3.8	6.2	7.5	8.4	9.5	4.4
Middle East	3.7	6.6	6.8	7.6	9.4	11.0	12.6	3.0
Turkey	0.1	0.4	0.4	0.5	0.6	0.8	0.9	3.6
Other Middle East	3.6	6.2	6.3	7.2	8.8	10.2	11.7	1.8
Africa	1.4	1.8	2.0	2.2	2.4	2.7	2.9	1.8
Central and South America . . .	2.0	3.1	3.2	4.5	6.6	9.2	11.1	6.0
Brazil	0.1	0.2	0.2	0.6	1.2	2.0	2.4	11.8
Other Central/South America . .	1.9	2.9	3.0	4.0	5.4	7.3	8.7	5.2
Total Developing	10.1	17.2	18.0	24.4	30.8	38.0	44.5	4.4
Total World	72.9	81.9	84.2	98.6	111.4	126.9	141.7	2.5

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Energy totals include net imports of coal coke and electricity generated from biomass in the United States. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B13; and World Energy Projection System (2002).

Table C6. World Coal Consumption by Region, Low Economic Growth Case, 1990-2020
 (Million Short Tons)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	959	1,121	1,122	1,254	1,326	1,357	1,400	1.1
United States ^a	895	1,040	1,045	1,169	1,235	1,262	1,303	1.1
Canada.	55	66	63	65	69	71	72	0.6
Mexico	9	15	13	20	22	24	26	3.3
Western Europe	894	566	546	483	462	439	399	-1.5
United Kingdom	119	70	65	59	56	50	40	-2.2
France	35	29	26	22	15	15	12	-3.5
Germany	528	269	258	228	225	217	201	-1.2
Italy.	23	19	19	16	16	14	13	-1.8
Netherlands	15	16	14	12	8	8	6	-3.7
Other Western Europe.	173	164	165	145	142	134	126	-1.2
Industrialized Asia	231	287	295	298	297	296	291	-0.1
Japan	125	144	149	155	158	160	157	0.2
Australasia	106	142	145	143	139	136	134	-0.4
Total Industrialized	2,084	1,974	1,963	2,035	2,085	2,091	2,091	0.3
EE/FSU								
Former Soviet Union	848	396	414	395	358	322	281	-1.8
Eastern Europe	527	414	363	339	303	265	229	-2.2
Total EE/FSU	1,375	810	778	734	662	588	510	-2.0
Developing Countries								
Developing Asia	1,583	1,903	1,686	1,975	2,183	2,338	2,521	1.9
China.	1,124	1,300	1,075	1,269	1,449	1,582	1,710	2.2
India	242	333	348	396	410	416	450	1.2
South Korea	42	60	65	72	77	81	82	1.1
Other Asia	175	210	197	238	247	259	279	1.7
Middle East	66	99	96	97	109	110	110	0.7
Turkey	60	86	84	86	92	92	92	0.4
Other Middle East	6	12	12	11	17	18	18	1.9
Africa	152	181	177	179	176	178	177	0.0
Central and South America . . .	26	42	41	44	44	43	44	0.4
Brazil.	17	28	27	30	33	33	35	1.3
Other Central/South America . .	9	15	14	15	11	10	9	-2.1
Total Developing	1,827	2,226	2,000	2,295	2,512	2,670	2,852	1.7
Total World	5,287	5,009	4,740	5,065	5,259	5,349	5,453	0.7

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country. To convert short tons to metric tons, divide each number in the table by 1.102.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B16; and World Energy Projection System (2002).

Appendix C

Table C7. World Nuclear Energy Consumption by Region, Low Economic Growth Case, 1990-2020
 (Billion Kilowatthours)

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	649	750	808	858	834	793	785	-0.1
United States ^a	577	674	728	759	737	697	691	-0.2
Canada.	69	68	70	90	90	88	87	1.0
Mexico	3	9	10	9	8	8	7	-1.1
Western Europe	703	836	846	808	785	739	660	-1.2
United Kingdom	59	95	91	66	58	49	29	-5.3
France	298	369	375	383	383	379	380	0.1
Germany	145	154	161	149	139	129	95	-2.5
Italy.	0	0	0	0	0	0	0	—
Netherlands	3	4	4	4	0	0	0	-100.0
Other Western Europe.	198	215	215	206	206	181	156	-1.5
Industrialized Asia	192	316	309	302	316	330	338	0.4
Japan	192	316	309	302	316	330	338	0.4
Australasia	0	0	0	0	0	0	0	0.0
Total Industrialized	1,544	1,902	1,962	1,967	1,936	1,861	1,784	-0.5
EE/FSU								
Former Soviet Union	201	183	190	194	183	177	145	-1.3
Eastern Europe	54	61	60	77	66	66	70	0.8
Total EE/FSU	256	244	250	270	249	243	216	-0.7
Developing Countries								
Developing Asia	88	145	160	213	256	291	346	3.7
China.	0	13	14	46	60	66	86	9.0
India	6	11	11	15	23	26	37	5.8
South Korea	50	85	98	113	113	135	154	2.2
Other Asia	32	36	37	40	60	65	68	3.0
Middle East	0	0	0	0	5	11	11	—
Turkey	0	0	0	0	0	0	0	—
Other Middle East	0	0	0	0	5	11	11	—
Africa	8	14	13	12	12	12	13	0.0
Central and South America . . .	9	10	11	15	15	12	17	2.3
Brazil	2	3	4	10	10	10	15	6.9
Other Central/South America . .	7	7	7	5	5	2	2	-6.4
Total Developing	105	169	184	240	288	326	388	3.6
Total World	1,905	2,315	2,396	2,478	2,473	2,430	2,388	0.0

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B8; and World Energy Projection System (2002).

**Table C8. World Consumption of Hydroelectricity and Other Renewable Energy by Region,
Low Economic Growth Case, 1990-2020
(Quadrillion Btu)**

Region/Country	History			Projections				Average Annual Percent Change, 1999-2020
	1990	1998	1999	2005	2010	2015	2020	
Industrialized Countries								
North America	9.5	10.7	11.4	11.9	12.6	13.3	13.7	0.9
United States ^a	6.1	6.9	7.3	7.8	8.1	8.7	9.0	1.0
Canada.	3.1	3.5	3.6	3.6	3.8	3.9	3.9	0.4
Mexico	0.3	0.4	0.4	0.5	0.7	0.7	0.8	2.5
Western Europe	4.5	5.4	5.6	6.3	6.7	7.1	7.5	1.4
United Kingdom	0.1	0.1	0.1	0.3	0.3	0.4	0.4	5.2
France	0.6	0.7	0.8	0.2	0.3	0.3	0.3	-4.0
Germany	0.3	0.3	0.4	0.6	0.7	0.8	0.9	4.4
Italy.	0.4	0.5	0.6	1.1	1.1	1.2	1.2	3.6
Netherlands	0.0	0.0	0.0	0.3	0.3	0.3	0.4	10.0
Other Western Europe.	3.2	3.7	3.7	3.9	4.0	4.1	4.3	0.7
Industrialized Asia	1.6	1.7	1.7	1.7	1.7	1.8	1.9	0.6
Japan	1.1	1.2	1.2	1.2	1.1	1.3	1.3	0.5
Australasia	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.8
Total Industrialized	15.6	17.9	18.6	19.9	21.1	22.2	23.1	1.0
EE/FSU								
Former Soviet Union	2.4	2.3	2.3	2.3	2.3	2.3	2.4	0.0
Eastern Europe	0.4	0.6	0.6	0.6	0.8	1.0	1.1	2.8
Total EE/FSU	2.8	3.0	3.0	3.0	3.1	3.3	3.5	0.7
Developing Countries								
Developing Asia	3.2	4.3	4.6	6.2	7.1	8.0	8.6	3.0
China.	1.3	2.1	2.3	3.0	3.4	3.9	4.3	3.0
India	0.7	0.8	0.9	1.1	1.2	1.3	1.4	2.3
South Korea	0.0	0.0	0.0	0.1	0.1	0.1	0.2	7.1
Other Asia	1.1	1.3	1.4	2.0	2.3	2.6	2.6	3.2
Middle East	0.4	0.6	0.5	0.7	0.8	1.1	1.3	4.5
Turkey	0.2	0.4	0.4	0.4	0.4	0.4	0.5	1.4
Other Middle East	0.1	0.2	0.2	0.3	0.4	0.6	0.8	8.0
Africa	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.6
Central and South America . . .	3.9	5.6	5.7	6.1	5.9	5.9	5.8	0.1
Brazil	2.2	3.1	3.3	3.8	3.8	3.5	3.3	0.1
Other Central/South America . .	1.7	2.5	2.4	2.3	2.2	2.3	2.5	0.2
Total Developing	8.0	11.1	11.5	13.8	14.6	15.8	16.6	1.8
Total World	26.5	32.0	33.1	36.6	38.8	41.3	43.2	1.3

^aIncludes the 50 States and the District of Columbia. U.S. Territories are included in Australasia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding. The electricity portion of the national fuel consumption values consists of generation for domestic use plus an adjustment for electricity trade based on a fuel's share of total generation in the exporting country. U.S. totals include net electricity imports, methanol, and liquid hydrogen.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 1999*, DOE/EIA-0219(99) (Washington, DC, February 2001). **Projections:** EIA, *Annual Energy Outlook 2002*, DOE/EIA-0383(2002) (Washington, DC, December 2001), Table B1; and World Energy Projection System (2002).